RAW SEQUENCE LISTING

DATE: 01/09/2002

PATENT APPLICATION: US/10/018,386

TIME: 12:13:24

Input Set : A:\MSB-7268.txt

Output Set: N:\CRF3\01082002\J018386.raw

ENTERED

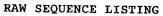
```
3 <110> APPLICANT: Bayer AG
              Friedrich, Gabi
      5
              Hagen, Gustav
      6
              Wick, Maresa
      7
              Zubov, Dmitry
              Dubois-Stringfellow, Nathalie A.
      8
     10 <120> TITLE OF INVENTION: METHODS FOR MODULATING ANGIOGENESIS
     12 <130> FILE REFERENCE: 17956A-000500PC
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/018,386
C--> 15 <141> CURRENT FILING DATE: 2001-12-13
     17 <150> PRIOR APPLICATION NUMBER: EP 99113502.1
     18 <151> PRIOR FILING DATE: 1999-07-02
     20 <160> NUMBER OF SEQ ID NOS: 8
     22 <170> SOFTWARE: PatentIn Ver. 2.1
     24 <210> SEQ ID NO: 1
     25 <211> LENGTH: 2173
     26 <212> TYPE: DNA
    27 <213> ORGANISM: Homo sapiens
     29 <400> SEQUENCE: 1
     30 gaaaatgagg ctgctgcgga cggcctgagg atgaacccca agccctggac ctgccqaqcq 60
     31 tggcactgag gcagcggctg acgctactgt gagggaaaga aggttgtgag cagccccgca 120
     32 ggacccctgg ccagccctgg ccccagcctc tgccggagcc ctctgtggag gcagagccag 180
    33 tggagcccag tgaggcaggg ctgcttggca gccaccggcc tgcaactcag gaacccctcc 240
    34 agaggccatg gacaggctgc cccgctgacg gccagggtga agcatgtgag gagccgcccc 300
    35 ggagccaagc aggagggaag aggctttcat agattctatt cacaaagaat aaccaccatt 360
    36 ttgcaaagac catgaggcca ctgtgcgtga catgctggtg gctcggactg ctggctgcca 420
    37 tgggagetgt tgeaggeeag gaggaeggtt ttgagggeae tgaggaggge tegeeaagag 480
    38 agttcattta cctaaacagg tacaagcggg cgggcgagtc ccaggacaag tgcacctaca 540
    39 cetteattgt geceeageag egggteaegg gtgeeatetg egteaactee aaggageetg 600
    40 aggtgcttct ggagaaccga gtgcataagc aggagctaga gctgctcaac aatgagctgc 660
    41 tcaagcagaa geggeagate gagacgetge ageagetggt gaaggtggae ggeggeattg 720
    42 tgagcgaggt gaagetgetg egeaaggaga geegeaacat gaactegegg gteaegeage 780
    43 totacatgca gotoctgcac gagateatec geaageggga caaegegttg gagetetece 840
    44 agetggagaa eaggateetg aaceagaeag eegaeatget geagetggee ageaagtaea 900
    45 aggacetgga geacaagtae eageacetgg ceacaetgge ceacaaceaa teagagatea 960
    46 tegegeaget tgaggageae tgeeagaggg tgeeetegge caggeeegte ceccageeae 1020
    47 cccccgctgc cccgccccgg gtctaccaac cacccaccta caaccgcatc atcaaccaga 1080
    48 tetetaceaa egagateeag agtgaceaga acetgaaggt getgeeacee eetetgeeca 1140
    49 ctatgeceae teteaceage eteceatett ceacegaeaa geegteggge ceatggagag 1200
    50 actgeetgea ggeeetggag gatggeeaeg acaceagete catetacetg gtgaageegg 1260
    51 agaacaccaa ccgcctcatg caggtgtggt gcgaccagag acacgacccc gggggctgga 1320
    52 cegteateca gagaegeetg gatggetetg ttaaettett caggaaetgg gagaegtaca 1380
    53 agcaagggtt tgggaacatt gacggcgaat actggctggg cctggagaac atttactggc 1440
    54 tgacgaacca aggcaactac aaactcctgg tgaccatgga ggactggtcc ggccgcaaag 1500
    55 tetttgeaga ataegeeagt tteegeetgg aacetgagag egagtattat aagetgegge 1560
    56 tggggcgcta ccatggcaat gcgggtgact cctttacatg gcacaacggc aagcagttca 1620
    57 ccaccctgga cagagatcat gatgtctaca caggaaactg tgcccactac cagaagggag 1680
```

RAW SEQUENCE LISTING DATE: 01/09/2002 PATENT APPLICATION: US/10/018,386 TIME: 12:13:24

Input Set : A:\MSB-7268.txt

Output Set: N:\CRF3\01082002\J018386.raw

58 gctggtggta taacgcctgt gcccactcca acctcaacgg ggtctggtac cgcgggggcc 1740 59 attaccggag ccgctaccag gacggagtct actgggctga gttccgagga ggctcttact 1800 60 cactcaagaa agtggtgatg atgatccgac cgaaccccaa caccttccac taagccagct 1860 61 ccccctcctg acctctcgtg gccattgcca ggagcccacc ctggtcacgc tggccacagc 1920 62 acaaagaaca actcctcacc agttcatcct gaggctggga ggaccgggat gctggattct 1980 63 gttttccgaa gtcactgcag cggatgatgg aactgaatcg atacggtgtt ttctgtccct 2040 64 cctactttcc ttcacaccag acageccete atgtetecag gacaggacag gactacagae 2100 65 aactettet ttaaataaat taagteteta caataaaaac acaactgcaa agtaaaaaaa 2160 66 aaaaaaaaa aaa 69 <210> SEQ ID NO: 2 70 <211> LENGTH: 493 71 <212> TYPE: PRT 72 <213> ORGANISM: Homo sapiens 74 <400> SEQUENCE: 2 75 Met Arg Pro Leu Cys Val Thr Cys Trp Trp Leu Gly Leu Leu Ala Ala 78 Met Gly Ala Val Ala Gly Gln Glu Asp Gly Phe Glu Gly Thr Glu Glu 81 Gly Ser Pro Arg Glu Phe Ile Tyr Leu Asn Arg Tyr Lys Arg Ala Gly 35 40 84 Glu Ser Gln Asp Lys Cys Thr Tyr Thr Phe Ile Val Pro Gln Gln Arg 55 87 Val Thr Gly Ala Ile Cys Val Asn Ser Lys Glu Pro Glu Val Leu Leu 90 Glu Asn Arg Val His Lys Gln Glu Leu Glu Leu Leu Asn Asn Glu Leu 93 Leu Lys Gln Lys Arg Gln Ile Glu Thr Leu Gln Gln Leu Val Lys Val 94 100 105 96 Asp Gly Gly Ile Val Ser Glu Val Lys Leu Leu Arg Lys Glu Ser Arg 115 120 99 Asn Met Asn Ser Arg Val Thr Gln Leu Tyr Met Gln Leu Leu His Glu 135 140 102 Ile Ile Arg Lys Arg Asp Asn Ala Leu Glu Leu Ser Gln Leu Glu Asn 150 105 Arg Ile Leu Asn Gln Thr Ala Asp Met Leu Gln Leu Ala Ser Lys Tyr 106 170 108 Lys Asp Leu Glu His Lys Tyr Gln His Leu Ala Thr Leu Ala His Asn 185 111 Gln Ser Glu Ile Ile Ala Gln Leu Glu Glu His Cys Gln Arg Val Pro 200 114 Ser Ala Arg Pro Val. Pro Gln Pro Pro Pro Ala Ala Pro Pro Arg Val 215 220 117 Tyr Gln Pro Pro Thr Tyr Asn Arg Ile Ile Asn Gln Ile Ser Thr Asn 118 225 230 235 120 Glu Ile Gln Ser Asp Gln Asn Leu Lys Val Leu Pro Pro Pro Leu Pro 121 245 250 123 Thr Met Pro Thr Leu Thr Ser Leu Pro Ser Ser Thr Asp Lys Pro Ser 124 265 126 Gly Pro Trp Arg Asp Cys Leu Gln Ala Leu Glu Asp Gly His Asp Thr



DATE: 01/09/2002 TIME: 12:13:24

PATENT APPLICATION: US/10/018,386

Input Set : A:\MSB-7268.txt

Output Set: N:\CRF3\01082002\J018386.raw

12	7		27	5				28	0				28	5		
12	9 Se	r Se	er Il	е Ту	r Le	u Va	l Lvs	s Pro	o Gli	ı Ası	n Th	r Ac	zυ. n Δr	TO	1 Mo	t Gln
13	0	29	0	-			295	5			111.	30		у пе	ı Me	r GIII
13	2 Va	1 Tr	тр Су	s As	p Gl	n Arc	a His	s Ası	o Pro	o Glo	v G1	יירידדייני	o n mh·	r 17a	1 71	e Gln
13	3 30	5	_		-	310	j		·		31		P 111.	· va.	r TT	
13	5 Ar	g Ar	g Le	u As	p Gl			Ası	n Phe	⊃ Ph	o Δr	J T Δei	n Trans		ı mb	320 r Tyr
13	6	-	_		32	5	- , 04.2	- 1101		33(J TI	J ASI	1 11	, GT		
13	8 Ly	s Gl	n Gl	v Ph			n Tle	Δar	n G15	, Gli	י יי מייי	м П.»	o T o i		33	ı Glu
13	9 -			34	0	,		- 115F	345	, 910	тту	r TT	э те			ı Giu
14	1 As	n Il	e Tv			ı Thi	~ Agr	. Glr			. Tree	. T	. T	35() 	LThr
14:	2		35	 5	P LC.	4 1111	. ASI	360	, 1 GT	ASI	ту	TĀ?			ı Va.	LThr
		t. G1			n 941	r Gla	zλro	JUC	/ • 1751	nh.			365		_	Phe
14	5	37	0	P -+)	y DC.	. 01)	375	; L⊔ys	o val	- PIIE	: Alc			: Ala	ı Sei	Phe
			_	ıı Dr	s Gli	1 507			• П			380	, _			
148	8 38.	5	u 01	u 110	3 610	390	. GIU	гтут	. тұт	глуг			j Let	ı GIy	Arg	Tyr
			vΔc	n 1\1:	a C1 v			nha	m L.		395)				400
15:	1		<i>y</i> 113	n AT	405	, ASE	, ser	PHE	Ini			Asr	ı GIy	Lys		Phe
		r ሞክ	r La	1 Acr				3		410	_,				415	j.
154	1	. 111	THE	42() WIG	ASP	HIS	Asp			Thr	GT Y	Asn Asn			His
		c G1	n Tir			. П	m	m.	425		_	_		430		
157	7 1. Y.	. 01.	и шул 43	: 2 GT)	GIA	Trp	Trp	Tyr	. Asn	. Ala	Cys	Ala			Asn	Leu
							~ 7	440					445			
160) ASI	45	y val. n	r Tr	туг	Arg	GTA	GLy	His	Tyr	Arg			Tyr	Gln	Asp
				a M		a 1	455					460				
163	465	va.	r ry.	Tr	о Ата	Glu	Phe	Arg	Gly	Gly			Ser	Leu	Lys	Lys
			Mod		-1-	470		_			475					480
166	· val	. va.	т ме	. Met	TTE	Arg	Pro	Asn	Pro		Thr	Phe	His			
		٥- ،	י אודי	. D. 170	485					490						
170	· \ Z1	.U > 1	DEQ 1	D NC	1: 3											
171	· \Z1	. T > 1	TENG]	H: 4	98											
				PRT												
174	<41	3> (JRGAN	IISM:	Hom	o sa	piens	S								
				NCE:		_		_								
176	Met 1	1111	. val	Pne	Leu	Ser	Phe	Ala	Phe		Ala	Ala	Ile	Leu	Thr	His
				_	5					10					15	
170	ire	GT	Cys	Ser	Asn	Gln	Arg	Arg	Ser	Pro	Glu	Asn	Ser	Gly	Arg	Arg
1/9				20					25					3.0		
107	Tyr	Asn	Arg	Ile	Gln	His	Gly	Gln	Cys	Ala	Tyr	Thr	Phe	Ile	Leu	Pro
102			35					40					45			
104	GIU	Hls	Asp	Gly	Asn	Cys	Arg	Glu	Ser	Thr	Thr	Asp	Gln	Tyr	Asn	${ t Thr}$
100		50					55					60				
18/	Asn	Ala	Leu	Gln	Arg	Asp	Ala	Pro	His	Val	Glu	Pro	Asp	Phe	Ser	Ser
100	0.5					70					75					RΛ
190	Gln	Lys	Leu	Gln	His	Leu	Glu	His	Val	Met	Glu	Asn	Tyr	Thr	Gln	Trp
TAT					85					90					95	
193	Leu	Gln	Lys	Leu	Glu	Asn	Tyr	Ile	Val	Glu	Asn	Met	Lvs	Ser	Glu	Met
194				TOO					105					110		
196	Ala	Gln	Ile	Gln	Gln	Asn	Ala	Val	Gln	Asn	His	Thr	Ala	Thr	Met	Len
1)			TTO					120					125			
199	Glu	Ile	Gly	Thr	Ser	Leu	Leu	Ser	Gln	Thr	Ala	Glu	Gln	Thr	Arσ	Lve
															3	_, _

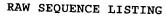
RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/018,386

DATE: 01/09/2002
TIME: 12:13:24

Input Set : A:\MSB-7268.txt

Output Set: N:\CRF3\01082002\J018386.raw

20	0	13	0				13	5				7.4	^			
20	2 Le	u Th	r As	p Va	1 G1	u Th	r Gl	n Va	1- T.e	11 Ac	n Cl	14 n mh	U T C C		. .	u Glu
		_				13	()				15	5				
20	5 Il	e Gl	n Le	u Le	u Gl	u As	n Se	r Le	u Se	r Th	r Tv	r Lw	c T.o	n C1	11 T++	160 s Gln
	~				ТΟ.)				17	Λ					_
20	8 Le	u Le	u Gl	n Gl	n Th	r As:	n Gl	u Ile	e Le	ıı Tıv	S T14	o Hid	e C1	11 T **	17	5 n Ser
	•			10	U				I X	5				10	^	
21	l Lei	u Le	u Gl	u His	з Гу	s Ile	e Lei	ı Glı	ı Me	t. G1	n Glv	7 T.376	o Ui	T 7.	U ~ ~1.	u Glu
	-		エノ	,				701	1				~ ~	_		
214	1 Le	ı As	p Th	r Lei	ı Lys	s Glu	ı Glu	ı Lys	6 G1	u As	n Lei	ı Glr	20 1 Gl:	J V Tai	1 Wa	l Thr
	•		0					•				227	`			
217	7 Arg	g Gl	n Th	r Tyı	: Ile	e Ile	e Glr	ı Glu	ı Lei	u G1	ıı Tave	: Glr	, Loi	1 A a 1	. 7	g Ala
		-					,				226	•				
220	Thi	Th	r Ası	n Asr	Sei	· Va]	. Leu	ıGln	Lvs	s Gli	n Glr	, Len	C11	1 T 01	Mot	240 Asp
	_				24.	,					1				~	-
223	Thr	· Val	l His	s Asn	Leu	ı Val	Asr	Leu	Cvs	Th:	r Lvs	Glu	G1s	, Wal	Z 3 .	ı Leu
				200					ソんり	`				070		
226	Lys	Gly	y Gly	/ Lys	Arg	Glu	Glu	Glu	Lys	Pro) Phe	Ara	Δer	4/U	' . ז] -	7.00
,			4/~	,				280					200			
229	Val	. Tyr	Glr	ı Ala	Gly	Phe	Asn	Lys	Ser	Glv	, Ile	Tvr	Thr	, . Tle	Tite T	· Tlo
•		200	,				290					300				
232	Asn	Asn	Met	Pro	Glu	Pro	Lys	Lys	Va1	. Phe	e Cys	Asn	Met	Δen	V = 1	Nan
	505					U					215					
235	Gly	Gly	gly	Trp	Thr	Val	Ile	Gln	His	Arc	Glu	Asp	Glv	Ser	T.Ou	320 7an
					37.1					227	i e					
238	Phe	Gln	Arg	Gly	Trp	Lys	Glu	Tyr	Lys	Met	Gly	Phe	Glv	Agn	Pro	Sor
241	Gly	Glu	Tyr	${\tt Trp}$	Leu	Gly	Asn	Glu	Phe	Ile	Phe	Ala	Ile	Thr	Ser	Gln
			933					3011					200			
244	Arg	Gln	Tyr	Met	Leu	Arg	Ile	Glu	Leu	Met	Asp	Trp	Glu	Glv	Asn	Ara
		9,0					1/7					200				
24/	Ala	Tyr	Ser	Gln	Tyr	Asp	Arg	Phe	His	Ile	Gly	Asn	Glu	Lvs	Gln	Asn
	000					390					205					
251	туг	Arg	Leu	Tyr	Leu	Lys	Gly	His	Thr	Gly	Thr	Ala	Gly	Lys	Gln	Ser
					400					<i>1</i> 10						
254	ser	Leu	тте	Leu	His	Gly	Ala	Asp	Phe	Ser	Thr	Lys	Asp	Ala	Asp	Asn
				420					1175					4 2 2		
257	ASP	ASII	435	мет	Cys	Lys	Cys	Ala	Leu	Met	Leu	Thr	Gly	Gly	Trp	Trp
,			マンン					4411					4 4 -			
260	riie	450	Ата	Cys	GIY	Pro	Ser	Asn	Leu	Asn	Gly	Met	Phe	Tyr	Thr	Ala
							4.1.1					160				
263	465	3711	ASII	uts	стА	LYS	Leu	Asn	Gly	Ile	Lys	Trp	His	Tyr	Phe	Lys
	- 0 0					4/1					175					
266	- - Y	* T O	per	TÅL	oer voe	ьeu	arg	Ser	Thr	Thr	Met :	Met	Ile	Arg	Pro	Leu
268					485					490					495	
272	<210	- IIC > - SF	תד חי	мо∙	4											
273	<211	- 00 - 1.F	NGTH Y ID	· 10:	* 6											
274	<212	> TV	PE	· ¥∄' DRm	J											
. =				* 1/1												



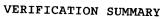
PATENT APPLICATION: US/10/018,386

DATE: 01/09/2002 TIME: 12:13:24

Input Set : A:\MSB-7268.txt

Output Set: N:\CRF3\01082002\J018386.raw

275 <213> ORGANISM: Homo sapiens 277 <400> SEQUENCE: 4 278 Met Trp Gln Ile Val Phe Phe Thr Leu Ser Cys Asp Leu Val Leu Ala 5 281 Ala Ala Tyr Asn Asn Phe Arg Lys Ser Met Asp Ser Ile Gly Lys Lys 20 284 Gln Tyr Gln Val Gln His Gly Ser Cys Ser Tyr Thr Phe Leu Leu Pro 35 40 287 Glu Met Asp Asn Cys Arg Ser Ser Ser Pro Tyr Val Ser Asn Ala 290 Val Gln Arg Asp Ala Pro Leu Glu Tyr Asp Asp Ser Val Gln Arg Leu 70 75 293 Gln Val Leu Glu Asn Ile Met Glu Asn Asn Thr Gln Trp Leu Met Lys 85 90 296 Leu Glu Asn Tyr Ile Gln Asp Asn Met Lys Lys Glu Met Val Glu Ile 100 105 299 Gln Gln Asn Ala Val Gln Asn Gln Thr Ala Val Met Ile Glu Ile Gly 115 120 302 Thr Asn Leu Leu Asn Gln Thr Ala Glu Gln Thr Arg Lys Leu Thr Asp 135 305 Val Glu Ala Gln Val Leu Asn Gln Thr Thr Arg Leu Glu Leu Gln Leu 150 155 308 Leu Glu His Ser Leu Ser Thr Asn Lys Leu Glu Lys Gln Ile Leu Asp 165 170 311 Gln Thr Ser Glu Ile Asn Lys Leu Gln Asp Lys Asn Ser Phe Leu Glu 180 185 314 Lys Lys Val Leu Ala Met Glu Asp Lys His Ile Ile Gln Leu Gln Ser 195 200 317 Ile Lys Glu Glu Lys Asp Gln Leu Gln Val Leu Val Ser Lys Gln Asn 215 220 320 Ser Ile Ile Glu Glu Leu Glu Lys Lys Ile Val Thr Ala Thr Val Asn 230 235 323 Asn Ser Val Leu Gln Lys Gln Gln His Asp Leu Met Glu Thr Val Asn 245 250 326 Asn Leu Leu Thr Met Met Ser Thr Ser Asn Ser Ala Lys Asp Pro Thr 260 265 329 Val Ala Lys Glu Glu Gln Ile Ser Phe Arg Asp Cys Ala Glu Val Phe 275 332 Lys Ser Gly His Thr Thr Asn Gly Ile Tyr Thr Leu Thr Phe Pro Asn 295 335 Ser Thr Glu Glu Ile Lys Ala Tyr Cys Asp Met Glu Ala Gly Gly Gly 310 315 338 Gly Trp Thr Ile Ile Gln Arg Arg Glu Asp Gly Ser Val Asp Phe Gln 325 330 341 Arg Thr Trp Lys Glu Tyr Lys Val Gly Phe Gly Asn Pro Ser Gly Glu 340 345 344 Tyr Trp Leu Gly Asn Glu Phe Val Ser Gln Leu Thr Asn Gln Gln Arg 360 347 Tyr Val Leu Lys Ile His Leu Lys Asp Trp Glu Gly Asn Glu Ala Tyr



PATENT APPLICATION: US/10/018,386

DATE: 01/09/2002 TIME: 12:13:25

Input Set : A:\MSB-7268.txt

Output Set: N:\CRF3\01082002\J018386.raw

L:14 M:270 C: Current Application Number differs, Replaced Application Number

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date